Umetco Minerals Corporation

PO BOX 579 4625 POYAL AVENUE • NIAGARA FALLS NEW YORK 14302

MAY 19 19[illegible]

May 12, 1986

Dr. F. J. Bradley
Principal Radiophysicist
New York State Department of Labor
Division of Safety and Health
Radiological Health Unit
One Main Street - Room 813
Brooklyn, NY 11201

Subject: Umetco Minerals Corporation, Niagara Falls, NY

Dear Dr Bradley

I have reviewed an April 9, 1986 letter from Mr Edward G DeLaney of the Office of Nuclear Energy in the Department of Energy advising me of Umetco's elimination from consideration for inclusion in the Formerly Utilized Site Remedial Action Program Mr DeLaney references surveys and a report, both prepared for the Niagara Falls site in 1980, and states that, among other things, concentrations of thorium and uranium were found in soils at the site

As you are aware, since 1982 we have been actively engaged in removing the residual radioactivity and to date have expended in excess of $500,000 In March of this year Mr. Robert Kelly of your department visited the site and obtained samples to verify that the cleanup was complete We understand, pending the results of these analyses, the area in question will be restored to unrestricted use and our Radioactive Material License will be terminated We wish to thank you for the assistance you have provided in this regard

Very truly yours,

George P. Parker

George P. Parker
Manager
Employee Relationship
Safety, Health and Environmental
Affairs

cc: Mr. R. F. Kelly, DOL
Mr. W Librizzi, USEPA
Mr D. G Millenbruch

Blind Copies:
Mr. R. G. Tisch
Mr. F. V. McMillen
Mr. C. T Wentzel
Mr. D. J. Hansen

Umetco Minerals Corporation

PO BOX 579 4625 ROYAL AVENUE • NIAGARA FALLS NEW YORK 14302

MAY 19 1986

May 15, 1986

Dr. F. J. Bradley
Principle Radiophysicist
New York State Department of Labor
Room 813
One Main Street
Brooklyn, NY 11202

Subject Umetco Minerals Corporation, Niagara Falls, NY

Dear Dr. Bradley·

In our phone conversation of Tuesday, May 13 we discussed disposal of two low level radioactive materials that were discovered in a radiation survey of the Umetco property in Niagara Falls, NY. The first was illmenite sand (an iron titanium ore) that had been used to backfill a 10' x 10' concrete pit The second was an isolated quantity of slag (calcium-aluminum oxide) from the furnacing of ferrovanadium The illmenite sand was removed from the pit and currently is contained in 125 (one hundred twenty-five) 55-gallon drums I would estimate total weight at approximately 40 to 50 tons. The slag is in lumps in a pile that I would estimate to contain 50 to 75 tons Analyses of the materials are presented in the following Table 1.

TABLE 1

Radiochemical Analyses of Samples From the Niagara Plant

	Analyses				
	URANIUM SERIES			THORIUM SERIES	
Description	Uranium µg/g	Th-230 pCi/g	Ra-226 pCi/g	Th-232 pCi/g	Th-228 pCi/g
Illmenite Sand - Top of Pit	28 9	12±2	19±2	16±2	17±2
Illmenite Sand - 7' in Pit	44.3	22±2	31±3	37±2	39±3
Dark Slag-Yard East of Fce. Bldg.	20.2	299±7	4.4±1 1	16±2	4±9
Light Slag-Yard East of Fce. Bldg	18.6	466±9	7.0±1.4	37±3	14±2

Industrial Code Rule 38, Table 5 "Limits for Uncontrolled Areas" limits source material to 0.05 percent by weight (500 µg/g or 500 ppm). For Thorium 232 this converts to 55 pCi/g. The concentrations of Th-232 reported in picocurries in Table 1 were converted to µg/g and added to the weight of uranium to determine the total source material present. This is shown in Table 2.

The gamma radiation measured at the surface during excavation of the pit and within the slag pile is also reported in Table 2.

TABLE 2

Weight of Source Material

Sample	Uranium µg/g	Th-232 µg/g	Total Source Material µg/g	Gamma Radiation µR/hr*
Illmenite-Top of Pile	28.9	145.5	174.4	170
Illmenite-7' In Pit	44.3	336.4	380.7	150
Dark Slag	20 2	145 5	165 7	150
Light Slag	18.6	336.4	355.0	200

*Ludlum Model 19 Micro R Meter - Reading at Surface

As we discussed the total source material in both materials is less than 500 µg/g, the limit for uncontrolled areas and the radiation is less than 250 µR, the limit for fixed surface contamination.

Although technically the material was not sufficiently radioactive to be controlled you convinced me that it was not a good idea to use it to fill a low area in the yard. If this were done then a rider would have to be appended to the lease that would restrict future building. Since this is not an attractive option I propose to dispose of both the slag and illmenite in a local hazardous waste repository.

Unless I misunderstood, you did not voice an objection to this during our phone conversation. Therefore, I plan to immediately begin the paper work to initiate this course of action. However I will not remove anything from the property before June to allow you time to reconsider. I will not expect to hear from you unless you disapprove.

I enjoyed talking to you on Monday and I want to thank you again for the assistance you provided

Sincerely

Donald J. Hansen

D. J. Hansen
Assistant Director - Technology

cc: Messrs:
R. F. Kelly
R. G. Beverly
F. V. McMillen

Blind Copies Messrs:
J. F. Frost
T. J. Kagetsu
D. G Millenbruch
R. L. Miller
W. D. Smith
C. T. Wentzel